



State of Maryland
Governor's Advisory Council on Recycling

Harvey Alter, Ph.D.
Chairman

1991/09

Hon. William Donald Schaefer
Governor, State of Maryland
State House
Annapolis, Maryland 21401

Dear Governor Schaefer:

It is my privilege to forward the second annual report of your Advisory Council on Recycling. The Council continues to make progress toward offering advice on all of the subjects required in your Executive Order establishing the Council.

Your appointments to the Council at the end of 1989 established the group for a period of three years. It is our judgement and plan that our work will be completed by the end of 1992, on schedule. We further anticipate that additional interim reports will be forwarded during this calendar year.

The Council will be pleased to elaborate on any of the items mentioned in the 1992 Annual Report.

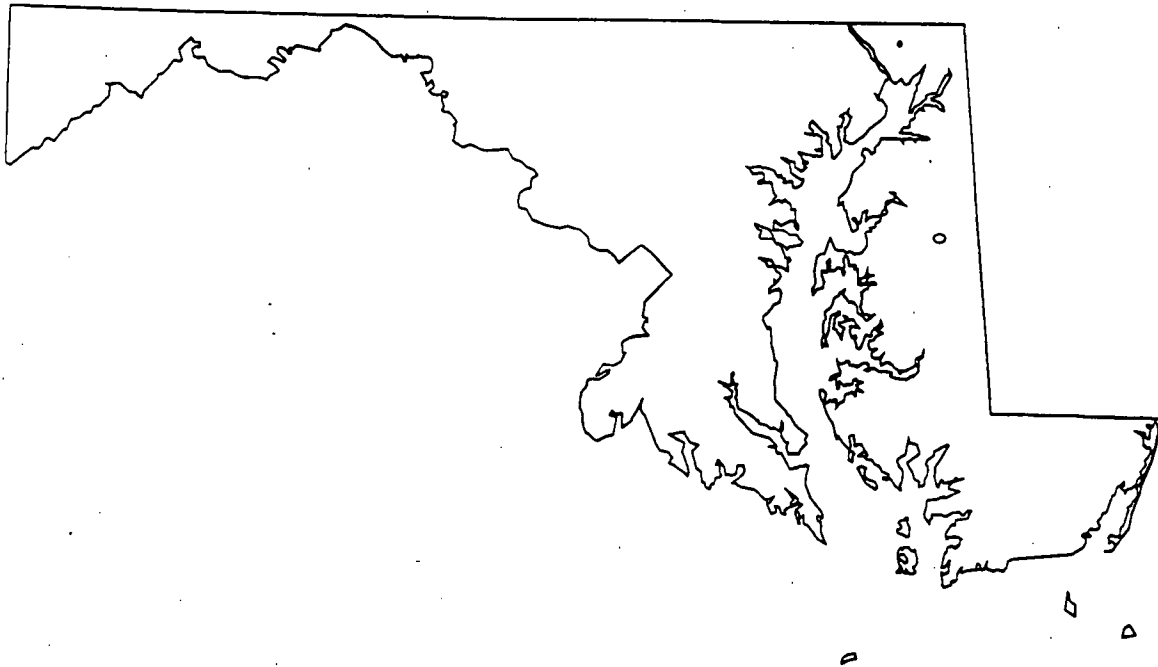
Sincerely,

Harvey Alter, Chairman

cc: Hon. Robert Perciasepe
Mr. Gerald L. Thorpe
Members of the Council

State of Maryland

Governor's Advisory Council on Recycling



Annual Report

1991

State of Maryland
Governor's Advisory Council on Recycling

Annual Report to the Governor
1991

Introduction

The Governor's Advisory Council on Recycling was established by Executive Order 0.01.01.1989.08 by Governor William Donald Schaefer. Members were asked to serve on November 1, 1989. A roster of the members for 1991, the organizations or positions they were chosen to represent, and the length of their terms, is included as Appendix I.

This is the second annual report of the Council. As such, it is a form of interim report of the Council in addressing the tasks assigned by the Executive Order and other related tasks that the Council has undertaken.

The Executive Order established the scope of the Council to advise and assist the Governor and the Department of the Environment in:

- (1) Coordinating the efforts of the State to facilitate the implementation of the recycling goals at the State and county level;
- (1) Identifying local, national and international markets for recycling materials;
- (3) Determining the need to expand or construct recycling centers;
- (4) Developing rules and regulations for recycling the solid waste stream;
- (5) Determining the programs necessary to educate the public on the need to participate in recycling efforts;
- (6) Determining the programs necessary to reduce the amount of solid waste generated for disposal;
- (7) Evaluating State procurement policies for the purchase of recycled materials;
- (8) Researching the economics and financing of existing and proposed systems of solid waste recycling; and

(9) Determining the costs, benefits, and effects of replacing certain packaging materials used in commerce with other recyclable materials and the role of these materials in recycling efforts.

Per the Executive Order, the Council is instructed to report to the Governor annually and interim reports are to be provided as necessary. This is the second annual report. Interim reports (referred to later) were submitted by letter to the Governor.

The Governor's letter of appointment to the Chairman included:

"In carrying out this charge, the council should meet quarterly the first year. Committees should be formed to address specific issues. Recommendations made by the Council should be accompanied by specific evaluation as to the impact on economics, environment, and other methods of waste disposal, as well as obstacles to implementation."

Further, a work plan was requested.

Organization and Meetings of the Council

At its first meeting on January 3, 1990, the Council decided to meet monthly, rather than quarterly, in order to carry out their mandates. Further, instead of specific committees, the Council agreed that task groups would be formed as necessary to address each of the nine points in the scope as well as related matters as the Council may identify. In this way, members could be involved at the earliest point in addressing more than one point of the scope and could be assigned to other points as portions of the scope were completed.

During 1991, the Council met every month, generally from 9:00 a.m. to noon on the first Monday of the month. Attendance was high, as listed in Appendix II.

The Council Work Plan

In accord with the Governor's request, and in order to plan the Council's activities, considerable effort was expended in the first few meetings to develop and approve a work plan. (During this time, the Council concurrently proceeded with discussion of other items within its charge.) Many of the items in the work plan had to be scheduled to fit in with the State's requirement that the counties submit recycling plans prior to July 1, 1990 and that the Department of Environment had already commissioned a contractor's study to identify local, regional and international markets for recycled materials.

The Council's work plan set out a schedule to address the nine points in the Governor's assigned scope and other matters viewed as pertinent. A copy of the 1991 work plan is included as Appendix III.

Interim Reports

Interim letter reports were submitted to the Governor on during the year. The points of the Executive Order addressed and the subjects covered were as follows:

- *Programs Necessary to Educate the Public on the Need to Participate in Recycling Efforts: Part 1: School Programs.* This report addressed possible new programs for grades K through 12 and for university undergraduate and post-graduate education.
- *Costs, Benefits, and Effects of Replacing Certain Packaging Materials Used in Commerce with Other Recyclable Materials: Part 1: Package Bans, Taxes and Deposits. Discussion and Recommendations.* This report addressed the possible effects of package bans, taxes and deposits on recycling programs.
- *Economics and Financing of Existing and Proposed Systems of Solid Waste Recycling and Facilitating the Implementation of Recycling Goals. Stimulating recycling at the Margin.* This report addressed means of stimulating recycling activities. An egalitarian waste disposal fee as a means of paying for programs was discussed and dismissed. A number of methods of stimulation were recommended that would rely on the use of existing state funds to supplement county programs, hence "at the margin."
- *Purchase and Use of Recycled Products.* This is a comprehensive review of current government activities in the state for purchase of recycled products and recommendations how the various existing programs may be broadened. In this way, Maryland can assist in increasing the demand pull for such products.
- *Miscellaneous Steps for Stimulating Recycling.* This short report recommended fifteen steps that can be taken to stimulate and increase recycling in the state.

All of the above were interim reports. It is planned that some of these subjects may be revisited and it is anticipated that additional recommendations will be made.

Outside Resources Consulted

During the course of the year the Council saw fit to invite outside experts for advise and counsel. These were: a representative of the Council of Northeast Governors (CONEG) Waste Reduction Project to discuss CONEG's proposed waste reduction legislation; a representative from the State of Pennsylvania Department of Natural Resources to discuss Pennsylvania's recycling program; and a representative from the consulting firm of Gershman, Brickner & Bratton, Inc. to review state legislation in Florida, New Jersey and Wisconsin.

The Council also benefited from several outside interested parties attending and contributing to many of the Council's discussions. Many others were consulted by the various Task Groups that were formed.

Summary of Subjects Discussed by the Council and Tentative Conclusions

Some of the key subjects discussed by the Council, which may be considered as work

in progress, are listed below.

Methods of financing existing and proposed systems of solid waste recycling was discussed and an internal memorandum prepared. This memorandum served as a starting point for continuing discussion of the subject.

Methods of waste or source reduction were reviewed. Examples of new types of reduced secondary or distribution packaging were presented.

Progress in the counties in submitting their required recycling reports, and the programs they have in place, were reviewed.

The Council discussed the forthcoming state tire recycling requirements and reviewed the burning of old tires in cement kilns.

The November 1991 meeting was devoted to a tour of the new Montgomery County Materials Recovery Facility (MRF).

Specific Recommendations

In late-1991, the Governor requested a brief summary of the Council's activities to date. This is included here as Appendix IV.

Future Activities

Many of the specific charges in the Executive Order forming the Council are on-going tasks. Interim reports will be issued at appropriate times.

Revisions in the Work Plan for calendar year 1992 were begun in September 1991 during an all day meeting of the Council.¹ The following activities are planned:

- **Recycling as an Economic Development Activity.** The Hon. Marc Wasserman, Secretary, Department of Economic & Employment Development, or his designee, has been invited to address the Council early 1992.
- **The Role of Small Businesses in Recycling.** Mr. Stanley Tucker, Executive Director, Small Business Development Financing Authority, has been invited to address the Council early 1992.

¹The Council's September 1991 meeting was expanded to a full day. Half of the day was spent on planning, both modifications to the Work Plan and identification of priority issues beyond those in the Executive Order. The Council was able to hold this meeting at the Department of Natural Resources Conference Center on Wye Island.

- **Regionalization of Recycling Activities.** The Hon. Tom Duncan, Talbot County Council, a member of the Council, is organizing a program for the Council to discuss regionalization. The emphasis of the discussion will be on what works, rather than on all the reasons regionalization does not work.

- **Possible Legislative Approaches.** The Hon. Gerald Winegrad, State Senator, and a member of the Council, is heading a task force leading to recommendations from the Council as to possible legislative approaches for increasing recycling in the State of Maryland.

- **Cooperation with National Recycling Programs.** A presentation is planned in May from Keep America Beautiful (KAB) to learn what would be involved for Maryland to be another state in their national program for improving and increasing recycling and litter reduction. One member of the Council (Barry Scher) is a member of the Board of Directors of KAB and another (Chairman Harvey Alter) is a member of the KAB National Advisory Council and Solid Waste Committee.

- **Subjects Still to Be Completed:** The following subjects and underway and will be completed during the course of 1992: economics and financing of recycling; product deposits; stimulating the construction of MRF's; rules and regulations for recycling; commercial waste recycling; and improving public information, particularly what we may learn from apparently the most successful program in the country, in Delaware.

Council Member Attendance During 1991

Appendix II is a report of Council Member attendance. It is judged to be extraordinarily high. Ms. Regina McNeil attended three times but had to resign when she relinquished her position representing the Maryland Municipal League. Dr. Michael Pelczar had resigned from the Council and then was reappointed. Allowing for the interim period, Dr. Pelczar's attendance was near perfect.

Acknowledgement

The Council acknowledges, with thanks, the excellent professional staff assistance from the Maryland Department of Environment.

LIST OF APPENDICES FOLLOWING

I. Roster and Tenure of Council Members

II. Report of Attendance of Council Members

III. Plan of Work for 1991

IV. Summary Report of Council activities from inception to September 1991v

**Governor's Advisory Council on Recycling
Tenure of Members**

- * Dr. Harvey Alter
Chairman
Manager, Resources Policy Department
U.S. Chamber of Commerce
Represents the general public
3 years from 11/1/89
- * The Honorable Thomas G. Duncan
Talbot County Council
Courthouse
Represents the Maryland
Association of Counties
2 year from 11/1/89*
- * Mr. Michael Gagliardo
Executive Director
Northeast Maryland Waste Disposal Authority
Represents the Northeast
Maryland Waste Disposal Authority
3 year from 11/1/89
- * Mr. Lawrence J. Hayward
Manager, Public & Government Affairs
AMOCO Corporation
Represents the packaging industry
3 years from 11/1/89
- * Mr. Paul Hollinger
RBL Industries
55 Raisen Tree Circle
Pikesville MD 21208
Represents the packaging industry
3 years from 11/1/89
- * Mr. George T. Hudnet
Regional Manager
Wheelabrator Environmental Systems, Inc.
Represents the solid waste industry
3 years from 11/1/90
- * Mr. James F. Katcef
Vice President
Katcef Bros., Inc.
Represents the food and beverage industry
2 years from 11/1/89*
- * Ms. Regina J. McNeill
Town of Berwyn Heights
Represents the Maryland Municipal League
2 years from 11/1/89*
- * Mr. James Pittman
Hazardous and Solid Waste
Management Administration
Maryland Department of the Environment
Represents the Maryland Department
of the Environment
3 years from 11/1/89

Tenure of Members
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- * Mr. Lenny D. Minutillo, Jr.
18028 Bacon Road
White Hall MD 21161
Represents the food & beverage industry
3 years from 11/1/90
- * Dr. Dan K. Morhaim
Chairman, Dept. of Emergency Medicine
Franklin Square Hospital
Represents the general public
3 years from 11/1/89
- * Mr. Michael Pelczar
Professor Emeritus, University
of Maryland
Represents the environmental community
3 years from 11/1/90
- * Mr. George Perdikakis
Maryland Environmental Service
Represents the Maryland
Environmental Service
3 years from 11/1/89
- * The Honorable Joan B. Pitkin
Delegate
Maryland House of Delegates
Represents the Maryland
House of Delegates
1 year from 11/1/89 ?
- * Mr. Thomas W. Redmond, Sr.
8224 Baltimore Annapolis Blvd.
Represents the recycling industry
2 years from 11/1/89*
- * Mr. Barry F. Scher
Vice President, Public Affairs
Giant Food, Inc.
Represents the Maryland Food
Dealers Association
2 years from 11/1/89*
- * The Honorable Gerald W. Winegrad
Senator
Maryland State Senate
Represents the Maryland State Senate
1 year from 11/1/89 ?

Governor's Advisory Council on Recycling

Attendance for the Year 1991

There were 12 Governor's Advisory Council on Recycling meetings in the calendar year 1991 (one meeting per month). The following attendance figures are as noted.

<u>Members</u>	<u>Meetings Attended</u>
Dr. Harvey Alter	11
The Honorable Thomas Duncan	7
* Mr. Michael Gagliardo	* 11
Mr. Lawrence Hayward	9
Mr. Paul Hollinger	10
Mr. George Hudnet	11
Mr. James Katcef	7
Ms. Regina McNeil	3
Mr. Lenny Minutillo	8
Dr. Dan Morhaim	8
Dr. Michael Pelczar	6
Mr. George Perdikakis	8
The Honorable Joan Pitkin	4
Mr. James Pittman	12
Mr. Thomas Redmond	4
Mr. Barry Scher	8
The Honorable Gerald Winegrad	7

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State of Maryland
Governor's Advisory Council on Recycling

PLAN OF WORK
1991

1.0 Introduction

This plan is a continuation of the April 2, 1990 plan of the Council. It is intended as a supplement to the original plan. The two should be read together.

Not all of the 1990 plan was accomplished due, in large, to the growing base of knowledge and understanding among the Council members. Many of the tasks were addressed and it was realized that several have to be further addressed in parts.

2.0 Tasks to be Addressed in 1991

Figure 1 is a schedule or Gantt chart of the 1991 plan of work. Some of the tasks are planned to carry over into 1992. A brief description of the tasks listed follows.

2.1 Package reduction. This task was started in 1990 and examines the effect of bans, taxes and deposits on packages as a means of reducing the amount of municipal solid waste (MSW) and increasing recycling. (Note that a further task (2.6) is planned to further examine methods of waste reduction, particularly through recycling.

2.2 Education. This task has addressed increasing public awareness by education programs in grades K through 12 and at the post-graduate university level. The task also addresses recommendations for the State to become ready for implementation of the federal National Environmental Education Act of 1990.

2.3 Raise revenues. This task has addressed methods of raising revenues to support additional recycling efforts in the State and possible ways those revenues can be used.

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- 2.4 State procurement. This task addresses methods of increasing the procurement of items by the State made of recycled materials, and thus helping provide a "demand pull" in the market for recycled products.
- 2.5 Economics and financing. This task addresses means of raising revenues in the State, counties and possibly municipalities to fund recycling efforts, including the construction of Materials Recovery Facilities (MRFs).
- 2.6 Waste Reduction. This task is a continuation of task 2.1 to explore additional means of reducing the amount of MSW destined for disposal by recycling and possibly other means.
- 2.7 Economic development. This task is at the suggestion of one of the Council members to explore ways in which the establishment of recycling activities can be tied into local economic development.
- 2.8 Public information. This task is related to 2.2 Education. It is directed at exploring and recommending means by which the State can increase awareness of recycling in communities and thus increase participation and yield of recycled products.
- 2.9 Product deposits. This task is at the suggestion of one of the Council members to explore ways in which product deposits may be used to divert materials from disposal and to recycling. Some of the products mentioned are lead acid storage batteries, appliances and tires.
- 2.10 ONP and tire markets. Markets for ONP (old newsprint) and tires are presently demand limited. Ways must be explored to increase the demand and hence the ability to recycle these materials in Maryland.
- 2.11 New MRF construction. This task will explore methods by which the construction of new and additional state-of-the-art MRFs can be encouraged. MRFs are processing plants that use a combination of machinery and hand labor to prepare separated materials to meet specifications for markets. Regionalization must be included in addressing this task.
- 2.12 Economic feasibility. This task will analyze the economic feasibility of recycling under different circumstances. The task is scheduled for study late in the year (and into 1992) when more data will be available on markets, participation and MRF economics.
- 2.13 Expand centers. This task, related to 2.12, is to examine how recycling can be expanded beyond MRFs and possibly service rural and high density housing, as contrasted to curbside pickup.

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2.14 Advancing MRFs. When this task is examined, there should be sufficient experience with MRFs to possibly understand how new and more efficient technology may be adopted in the State to advance the efficiency of recycling and better meet market specifications.

2.15 Rules and regulations. At some time, there will have to be State regulations governing the design and operation of MRFs and other recycling activities so as to protect public health. This is a difficult task, and possibly beyond the lay understanding of solid waste management and public health issues among the Council members.

2.16 Annual report. An annual report for 1991 is scheduled, as required. It is marked as a milestone on the Gantt chart.

3.0 Updates of the Work Plan

The 1991 Work Plan schedule is now computerized so can easily be updated from time to time. This will also provide a progress report for the Governor and others.

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1991-1992 Work Plan Schedule
Governor's Advisory Council on Recycling

TASKS	1991												1992											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	
Package reduction	██████████																							
Education	██████████																							
Raise revenues		██████████	██████████	██████████	██████████	██████████																		
State procurement			██████████	██████████																				
Econ. & financing			██████████	██████████	██████████	██████████																		
Waste reduction				██████████	██████████	██████████	██████████	██████████	██████████															
Economic develop.								██████████	██████████															
Public information										██████████	██████████													
Product deposits										██████████														
ONP-tire markets							██████████	██████████	██████████	██████████	██████████													
New MRF const'ion													██████████	██████████	██████████	██████████	██████████							
Economic feasib.										██████████	██████████	██████████	██████████	██████████	██████████	██████████	██████████							
Expand centers										██████████	██████████													
Advancing MRFs										██████████	██████████	██████████	██████████	██████████	██████████	██████████	██████████							
Rules & regulation										██████████	██████████	██████████	██████████	██████████	██████████	██████████	██████████							
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State of Maryland

Governor's Advisory Council on Recycling

SUMMARY INTERIM PROGRESS REPORT

1990 - 1991

Executive Order 01.01.1989.08 established the Governor's Advisory Council on Recycling. Members were appointed in November 1989. The first meeting was in January 1990 and the Council has met monthly since then. This interim progress report summarizes the results of the Council's considerations and an appendix lists the interim reports that have been submitted to Governor Schaefer. It is important to note that these reports were prepared by the Council; no outside consultants or contractors were employed.

All decisions and approvals of the several interim reports submitted to Governor Schaefer bear the full consensus approval of the Council members. Most of the items for the Council's consideration included in the Executive Order have been addressed. The Council's plan of work (revised annually and most recently on September 12, 1991) should assure that all nine items in the Executive Order will be considered and reported on within the three years established for this purpose. Additional items have been added by the Council; some of these have been completed.

This summary report is divided into three sections: (1) a summary of the issues debated and brought to some closure; (2) areas that should be allowed to grow with encouragement or without interference; and (3) new programs that require further analysis.

1. Summary of Issues Considered

The issues considered (and reported) are summarized here according to the required Scope of the Council. Some have resulted in interim reports that complete consideration; others may require re-visiting.

Coordinating the efforts of the State to facilitate the implementation of the recycling goals at the State and County level. The Council continues to monitor the efforts of the Maryland Department of the Environment and the Maryland Environment Service in this regard. Reports are given to the Council monthly and suggestions made. The Council has participated in some of the related meetings in the State. Meetings have been held with outside experts from the public and private sectors. Consideration has been given to the establishment

of a database to assist subdivisions in their marketing of recyclable materials. The Council reviewed some of the County recycling plans.

Identifying local, national and international markets for recycling materials. The Council reviewed the Maryland Recyclable Materials Market Study of 1989. This document is an excellent starting point, which will need periodic updates.

Determining the programs necessary to educate the public on the need to participate in recycling efforts. This task is in progress. Recommendations have been made as part of an approach to stimulate recycling at the margin. In addition, the Council submitted an interim report establishing recycling education programs in grades K through 12 and at the post-graduate level.

Determining programs necessary to reduce the amount of solid waste generated for disposal. An interim report was submitted in the form of pamphlets to explain and encourage double-sided copying and establishment of office recycling programs.

Evaluating State procurement policies for the purchase of recycled materials. A report has been submitted on this subject with recommendations for expansion of programs at the State and subdivision levels.

Determining the costs, benefits, and effects of replacing certain packaging materials used in commerce with other recyclable materials used in commerce with other recyclable materials and the role of these materials in recycling efforts. An interim report has been submitted addressing bans, taxes and deposits for this purpose.

In addition to addressing these tasks, the Council has submitted a pamphlet on conducting waste audits for waste reduction and recycling, and a guide for purchasing recycled materials. Considerable discussion has been held regarding means of raising revenues for recycling and waste reduction techniques. An interim report listing 15 miscellaneous steps for encouraging recycling was also submitted.

2. Areas that Should Be Allowed to Grow without Interference

The Council has been monitoring progress in the implementation of Maryland's recycling law and some of the county recycling plans have been reviewed. The law appears to be working well and no changes appear necessary at this time.

Partly as a result of the Council's activities, University College, University of Maryland College Park is working toward including solid waste recycling in their Master's in Technology Management program. This will provide much needed post-graduate education in the field. Encouragement from the State's leadership will help move plans; a small

amount of seed money could expand the planning to a more inter-disciplinary approach.

The Council considered the effects of bans, taxes and deposits on packaging materials and concluded that such actions would not assist recycling and could impede it.

3. New Programs that Require Further Analysis

Recommendations have been made for establishment and expansion of recycling education programs in grades K through 12. The Governor has directed an evaluation of these.

Recommendations have been made as to how recycling programs can be stimulated at the margin (such as by providing for additional training, interdisciplinary graduate costs, for innovation in materials recovery facilities, and for small business incubators). Additional recommendations have been made how such programs could be financed through mechanisms similar to or through the Loans for Solid Waste Facilities (1990) and similar programs.

Extensive recommendations have been made as to how to encourage purchase and use of recycled products. Some of these can be easily implemented; others require study. These recommendations were made only recently.

There are several miscellaneous recommendations, some of which require extensive study. These are:

- ◆ Determine the feasibility of including waste tires in asphalt for road paving.
- ◆ Determine the feasibility of obtaining a tire-derived fuel power plant in the State.
- ◆ Determine the feasibility of including densified refuse-derived fuel from the non-recyclable portion of office waste in a tire-derived fuel power plant.
- ◆ Encourage subdivisions to divert all leaves and other yard waste from landfill to composting.
- ◆ Determine the feasibility and acceptability of using yard waste compost for daily cover for landfills.
- ◆ Encourage all public groups and property owners to leave their grass clippings on lawns. Demonstrate the advantages of this step by demonstration, for example by doing so at Byrd Stadium, University of Maryland College Park.
- ◆ Encourage subdivisions to chip tree waste for mulch and to use this mulch on public properties.

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- ◆ Encourage all the Department of General services, subdivisions and school systems to establish recycling and waste reduction programs at central receiving and supply centers.
- ◆ Encourage all rapid transit and commuter systems, and Baltimore-Washington Airport to establish newspaper recycling programs and to install convenient receptacles for the public.
- ◆ Expand cooperative ventures between the private and public sectors, including the Maryland Environmental Service to expand used oil recycling.
- ◆ Consider modifying the present five percent purchase preference for recycled products to a sliding scale so that in the initial one or more years this is higher to encourage infant industries and the preference decreasing in subsequent years until there is no purchase preference. This will ultimately increase competition and save money.
- ◆ Encourage subdivisions to divert all obsolete appliances (white goods) to scrap processors.
- ◆ Order a study (such as by the Legislative Reference Service) of all State laws to assure that there is no inadvertent prejudices against recycled materials. (This was done in 1980 for the State Solid Waste Management Commission. At that time, no such prejudices were found.)
- ◆ Instruct appropriate State departments to determine where more recycled materials can be used in construction.
- ◆ Initiate a study as to how subdivisions can phase-in user fees for waste disposal so that citizens are aware of the full costs of this service. Once this is done, there can be consideration of collection and disposal costs being tied to the amount of waste discarded.

APPENDIX

Titles of Interim Reports Submitted

- ◆ Guide to Buying Recycled Products
- ◆ Guide to Waste Audits for Waste Reduction
- ◆ Guide to Office Recycling
- ◆ Costs, Benefits and Effects of Replacing Certain Packaging Materials Used in Commerce with Other Recyclable Materials: Part 1: Package Bans, Taxes

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and Deposits. Discussion and Recommendations

◆ Programs Necessary to Educate the Public on the Need to Participate in Recycling Efforts. Part 1: School Programs

◆ Economics and Financing of Existing and Proposed Systems of Solid Waste Recycling and Facilitating the Implementation of Recycling Goals. Stimulating Recycling at the Margin.

◆ Purchase and Use of Recycled Products

◆ Miscellaneous Steps for Stimulating Recycling